

XXXVII.—Notes on a Collection of African Blattidæ, chiefly from the Transvaal, formed by Mr. W. L. Distant. By W. F. KIRBY, F.L.S., F.E.S., &c.

DURING his residence in the Transvaal Mr. Distant paid particular attention to the Blattidæ, and obtained a series of very interesting species. There are a considerable number of remarkable forms in Southern and Eastern Africa, and an examination of this collection has enabled me to record several genera previously known only from Madagascar as occurring also on the African continent, to clear up several doubtful points of synonymy, and to place together the sexes of various species. A large proportion of African species belong to genera in which the females are very different from the males, and mostly apterous; and we require a much larger series of specimens of both sexes than have yet been brought together to enable them to be worked out in anything like a satisfactory manner.

The species of Blattidæ enumerated below, and mostly represented in Mr. Distant's collection, are as follows:—

## ORTHOPTERA-BLATTIDÆ.

### Ectobiidæ.

*Ectobia*, Westw.  
*cricketorum*, Wesm.  
*Aphlebia*, Brunn.  
*transvaaliensis*, sp. n.  
*bicolor*, sp. n.

### Phyllodromiidæ.

*Phyllodromia*, Serv.  
*bivittata*, Serv.  
*delta*, sp. n.  
*ruficeps*, sp. n.

*Ischnoptera*, Burm.  
*strigosa*, Schaum.

### Epilampridæ.

*Epilampra*, Burm.  
*pardalina*, Walk.

### Blattidæ.

*Apotrogia*, gen. nov.  
*angolensis*, sp. n.  
*Dorylæa*, Stål.  
*rhombofolia*, Stoll.

*Periplaneta*, Burm.  
*americana*, Linn.  
*Eurycotis*, Stål.  
*athiopica*, Sauss.  
*Deropeltis*, Burm.  
*erythrocephala*, Fabr.  
*atra*, Brunn.  
*melanophila*, Walk.  
*brevicollis*, Serv.  
*similis*, Sauss.  
*capensis*, Sauss.  
*Distanti*, sp. n.

### Panchloridæ.

*Rhyparobia*, Krauss.  
*maderæ*, Fabr.  
*Gyna*, Brunn.  
*caffrorum*, Stål.  
*Nauphæta*, Burm.  
*aspersata*, sp. n.

### Perisphæriidæ.

*Eustegasta*, Gerst.  
*pæcila*, Schaum.  
*obsolata*, sp. n.

- Gynopeltis*, Gerst.  
*discoidalis*, Brunn.  
*cryptospila*, Walk.  
*Elliptoblatta*, Sauss.  
*uniformis*, sp. n.  
*Pronaonota*, Sauss.  
*cribrosa*, Sauss.  
*Pilema*, Sauss.  
*thoracica*, Walk.  
*Saussurei*, sp. n.  
*Stenopilema*, Sauss.  
*cylindrica*, Walk. (?).  
*pallicornis*, sp. n.  
*Cyrtotria*, Stål.  
*scabra*, Walk.  
*Derocalymma*, Burm.  
*elateroides*, Walk.  
*versicolor*, Burm.  
*porcellio*, Gerst.
- Derocalymma*  
*linearis*, Walk. (?).  
*punctata*, Sauss.  
*bipapilla*, sp. n.  
*intermedia*, sp. n.  
*granulata*, Sauss.  
*pallipes*, sp. n.  
*clavigera*, sp. n.  
*Hostilia*, Stål.  
*proterva*, Stål.
- Heterogamiidæ.**
- Heterogamia*, Burm.  
*ursina*, Burm.
- Chorisoneuridæ.**
- Oxyhaloa*, Brunn.  
*deusta*, Thunb.

### Ectobiidæ.

#### *Ectobia ericetorum*.

*Blatta ericetorum*, Wesm. Bull. Acad. Brux. v. p. 587 (1838).

*Ectobiu ericetorum*, Brunn. Syst. Blatt. p. 58 (1865); Prodr. Eur. Orth. p. 34 (1882).

1, Pretoria (*Distant*).

A common British and European species. Probably an introduced species in the Transvaal.

#### *Aphlebia transvaaliensis*, sp. n.

Long. corp. 10 millim.

*Male*.—Varied with black and testaceous. Head black; front, between the antennæ, with a testaceous spot, below which are three connected markings increasing in breadth downwards, the first transverse, the second rhomboidal, the third a smaller rhomboid, with a lateral projection on each side turning upward at a right angle; antennæ black, testaceous at the base. Pronotum black, bordered with testaceous, and with an irregularly transverse mark on its lower half. Wings about four-fifths as long as the abdomen, costa edged by a ferruginous line; baso-costal area testaceous, connected at the extremity with a testaceous band running across the tegmen as far as the internal area; internal area testaceous at the base. Abdomen black, with large testaceous marginal markings. Cerci black above, testaceous below, as is most of the under surface except the tip of the abdomen, some lateral marks on the pectus and abdomen, and some dots at

the base of the spines on the outer edge of the hind tibiæ, which are black or blackish.

1, Pretoria (*Distant*).

Closely allied to *Temnopteryx variegata*, Schulthess, from Delagoa Bay, of which it may be a variety.

This genus is well represented in North Africa, as in the Mediterranean region generally, and one species has been described from Madagascar. I add the description of an allied species in the Natural History Museum from Port Elizabeth.

*Aphlebia bicolor*, sp. n.

Long. corp. 8-10 millim.

*Female*.—Varied with black and testaceous. Head black, with a transverse testaceous stripe on the vertex, and the space round the base of the antennæ and sometimes the mouth-parts more or less testaceous; antennæ black, testaceous towards the base. Pronotum nearly as in *A. transvaaliensis*, but the central pale mark is longitudinal. Meso- and metanotum testaceous, with a black band behind; tegmina as long as the mesonotum, testaceous, with a longitudinal blackish central stripe; abdomen black, with about five rows of testaceous spots or dashes on each side of the median line, the middle ones more linear and the marginal ones larger and more irregular in shape than the others; the last two abdominal segments are bordered behind with testaceous, and from this streak testaceous lines run obliquely upwards and outwards; terminal plate black, spotted with testaceous. Pectus testaceous, with blackish markings towards the margins; legs testaceous, femora lined on both edges with black, and tibiæ dotted with black. Cerci testaceous, with a black spot in the middle above, and several transverse blackish markings below.

Described from three specimens.

It is perhaps an immature insect, and has some resemblance to the larva of *Ectobia ericetorum* (*vide supra*).

Phyllodromiidæ.

*Phyllodromia bivittata*.

*Blatta bivittata*, Serv. Orth. p. 108 (1839).

*Phyllodromia bivittata*, Brunn. Syst. Blatt. p. 92 (1865).

1, Pretoria (*Distant*); 1, Fort Johnston, Nyasaland (*Rendall*).

Found in South Africa, and in various parts of Tropical America. Evidently liable to be distributed by shipping, like its close ally *P. germanica*, L.

*Phyllodromia delta*, sp. n.

Long. corp. cum tegm. 20 millim.

Head testaceous, vertex brown, tip of mandibles reddish brown. Pronotum with a dark brown centre, broadest behind, and with sinuated margins, beyond which the pronotum is hyaline. On the lower part of this dark space stands an equilateral yellowish triangle, with the apex pointed downwards. Scutellum very pale testaceous. Tegmina with a great part of the costal area hyaline, the rest rufo-testaceous, paler at the extreme base, and with a pale oblique band at two-thirds of the length, and paler towards the extremity. Underside and legs testaceous, the legs dotted with brown or reddish brown above, above and below the knees, and on the upper surface of the tibiæ.

1, Barberton (*Rendall*).

Described from a single specimen in too poor condition to allow of a complete description. It resembles *P. supellectilium*, Serv., but is much larger, and the pale triangle on the dark centre of the thorax will serve to distinguish it.

*Phyllodromia ruficeps*, sp. n.

Long. corp. cum elytris 13–15 millim.

*Male*.—Black, vertex and face dark red, trochanters and a narrow border to the abdomen beneath testaceous, legs and spines inclining to reddish. Pronotum subhyaline, the middle filled up with a large black mark, not extending to the front margin, and broadest behind, where it is narrowly bordered with pale; tegmina dark blackish brown, inclining to reddish towards the sides and extremity of the dark portion, and with the costal area broadly subhyaline for four fifths of its length.

2, Fort Johnston; 1, Zomba (*Rendall*).

Differs from *P. vinula*, Stål (*amæna*, Walker), by its larger size and red head.

*Ischnoptera strigosa*.

*Blatta strigosa*, Schaum, Peters's Reise nach Mossamb. p. 108 (1862).

*Ischnoptera strigosa*, Brunn. Syst. Blatt. p. 138 (1865).

*Ischnoptera natalensis*, Walk. Cat. Blatt. p. 127. n. 30 (1868).

4, Pretoria; 1, Pemba Island; 1, Piensaars River (*Distant*); 1, Barberton (*Rendall*).

Mozambique (*Schaum*); Natal, Zomba (Nat. Hist. Mus.).

**Epilampridæ.***Epilampra pardalina.*

*Epilampra pardalina*, Walk. Cat. Blatt. p. 68. n. 6 (1868).

2, Barberton (*Rendall*) ; Lake N'Gami (Nat. Hist. Mus.).

A rather small but very conspicuous and easily recognizable species, which does not seem to have been described by any author but Walker.

**Blattidæ.**

## Genus APOTROGIA, nov.

Very broadly oval; smooth and polished. Head completely concealed under the pronotum; eyes placed widely apart; pronotum depressed at the sides and in front; mesonotum and metanotum with the sides broadly deflexed backwards; abdomen depressed, acutely angled on the lateral extremities, and forming a projecting tooth on the last, and one less prominent on the penultimate segment; cerci broad, not longer than the subgenital plate, which is nearly twice as broad as long, slightly rounded off at the lateral angles, and curved inwards in the middle. Front femora with several short spines on the outer carina, but only the terminal spine on the inner carina, the rest unarmed. Tibiæ broad, with a single row of spines on the inner edge above, and a double row on the outer edge above; tarsi moderately stout, metatarsus rather longer than the three middle joints together, which collectively are slightly longer than the terminal joint. Embolium well marked.

This genus is based on six specimens (including both sexes), which may be immature; but I have no winged specimens which can be referred to them. They are not unlike immature specimens of the American genus *Blaberus*, Serv., which belongs to another family. But if winged specimens of the present genus are met with, they can easily be identified as belonging to it. At present I am inclined to place *Apotrogia* near the Australian genus *Polyzosteria*, Burm.

*Apotrogia angolensis*, sp. n.

Long. corp. 24–28 millim.; lat. corp. 17–21 millim.

Head testaceous, face ferruginous or blackish below the vertex, except a narrow testaceous border within the antennæ; antennæ ferruginous, more or less blackish above scape, paler

beneath. Pronotum transversely striated, somewhat rugose behind, tawny, with a large trapezoid ferruginous or blackish blotch resting on the base; this blotch is shaped nearly as in *Blaberus*, but reversed, being broadest behind, where it is sometimes marked with three tawny dots in a transverse line; in front this patch throws off two broad parallel brown bands, separated by a tawny line broadest behind, nearly to the front edge. There are also brown bands thrown out obliquely forward to the margins from the front angles of the main blotch, and the pronotum behind is edged with brown along its lateral and hinder margin; the hinder margin, however, is narrowly bordered by a yellow line, and the dark edging ceases before reaching the dark blotch. The mesonotum and metanotum are ferruginous, sometimes edged behind by a narrow yellow line, and more or less varied with reddish; the middle of the mesonotum is tawny, with a black spot on the front edge in the middle. Abdomen ferruginous, with seven more or less complete rows of tawny spots and most of the sixth segment tawny; towards the margins the dark markings are blackish. Cerci ferruginous, tipped with tawny. Legs above mostly ferruginous, below mostly tawny. Abdomen beneath tawny, with about five rows of darker markings more or less visible in some of the specimens.

6, Angola (*Monteiro*).

Two in Mr. Distant's collection and four in the Natural History Museum.

Easily recognizable by the peculiar pattern of the pronotum. The sexes differ little.

#### *Dorylæa rhombifolia.*

*Blatta rhombifolia*, Stoll, Blatt. p. 5, pl. iii. d, fig. 13.

*Periplaneta rhombifolia*, Sauss. Mém. Soc. Genève, xx. p. 260 (1869).

*Periplaneta histrio*, Sauss. Rev. Zool. 1864, p. 318; Mém. Mex. Blatt. p. 73 (1864); Walk. Cat. Blatt. p. 130. n. 20 (1868).

*Periplaneta decorata*, Brunn. Syst. Blatt. p. 224 (1865).

*Periplaneta heterospila*, Walk. Cat. Blatt., Suppl. p. 35 (1871).

5, Fort Johnston, Nyasaland (*Rendall*); 1, Pemba Island (*Distant*).

First described from China. Common in the warmer parts of Asia, Africa, and America.

#### *Periplaneta americana.*

*Blatta americana*, Linn. Syst. Nat. (ed. x.) i. p. 424. n. 4 (1758).

*Periplaneta americana*, Brunn. Syst. Blatt. p. 232 (1865).

1, Barberton; 3, Pemba Island (*Distant*); 1, Fort Johnston, Nyasaland (*Rendall*).

A cosmopolitan species, carried everywhere by shipping and commerce.

*Eurycotis æthiopica.*

*Periplaneta æthiopica*, Sauss. Rev. Zool. 1864, p. 317; Mém. Soc. Genève, xx. p. 260 (1869).

*Periplaneta tetra*, Walk. Cat. Blatt. p. 138. n. 42 (1868).

11, Pretoria and Masil Nek (*Distant*). Gaboon (*Saussure*), Cape Town, Port Elizabeth, British East Africa (Nat. Hist. Mus.).

If the West-African form proves to be distinct, Walker's name will be available for the southern and eastern form. I have no West-African specimens to compare.

*Deropeltis erythrocephala.*

*Blatta erythrocephala*, Fabr. Spec. Ins. i. p. 342. n. 7 (1761).

*Deropeltis erythrocephala*, Brunn. Syst. Blatt. p. 242 (1865).

1, Cape Town (*Becker*). Port Elizabeth, Durban (Nat. Hist. Mus.).

An immature specimen from Zomba (*Rendall*) and another from Blantyre (*Elson*) in Mr. Distant's collection appear to belong to this species.

*Deropeltis atra.*

*Deropeltis atra*, Brunn. Syst. Blatt. p. 244 (1865); De Borm. Ann. Mus. Genov. xvi. p. 207 (1881).

2, Fort Johnston, Nyasaland (*Rendall*); Shoa (*de Bormans*). Zomba, Ruwenzori, Port Elizabeth (Nat. Hist. Mus.).

A widely distributed species in East Africa.

The antennæ are more or less tipped with reddish in both sexes, which is not mentioned by Brunner in his description.

*Deropeltis melanophila.*

*Ischnoptera melanophila*, Walk. Cat. Blatt., Suppl. p. 146 (1869).

1, Pemba Island (*Distant*). Zanzibar, Mombasa, British East Africa (Nat. Hist. Mus.).

Perhaps a large form of *D. atra*, Burm.

*Deropeltis brevicollis.*

*Kakerlac brevicollis*, Serv. Ins. Orth. p. 70 (1839).

*Deropeltis* (?) *brevicollis*, Brunn. Syst. Blatt. p. 246 (1865).

*Deropeltis juncea*, var., Sauss. Mém. Soc. Genève, xxiii. p. 117 (1874).

4, Pretoria (*Distant*); 2, Barberton (*Rendall*). Cape (*Serville*); Lagos, Zomba (Nat. Hist. Mus.).

The type of *D. juncea*, Sauss. (Rev. Zool. 1864, p. 314), appears to represent a dark form of this species.

*Deropeltis similis.*

*Ischnoptera similis*, Sauss. Rev. Zool. xvi. p. 314 (1864).

*Nauphata foveolata*, Walker, Cat. Blatt. p. 42. n. 16 (1868).

3, Pretoria; 1, Port Elizabeth (*Distant*); 1, Barberton; 1, Zomba (*Rendall*). East London (Nat. Hist. Mus.).

The legs and pronotum vary somewhat in colour in different specimens. The specimens from Barberton and one of those from Pretoria represent a form of the insect which stands in the same relation to typical *D. similis* that *D. brevicollis* occupies towards *D. juncea*. *D. foveolata* is a dark form with the pronotum alone uniform black.

*Deropeltis capensis.*

*Polyzosteria capensis*, Sauss. Rev. Zool. 1864, p. 307.

*Deropeltis flavomarginata*, Brunn. Syst. Nat. p. 247 (1865).

*Periplaneta collaris*, Walk. Cat. Blatt. p. 142. n. 51 (1868).

*Periplaneta decorata*, Walk. l. c. n. 52 (1868).

1, Teafontein, Cape Colony; Cape (*Brunner*); Natal, Port Elizabeth (Nat. Hist. Mus.).

A conspicuous species with a yellow border to the pronotum.

*Deropeltis Distanti*, sp. n.

Long. corp. 17 millim.

*Female*.—Black, shining, especially the head; lower mouth-parts yellow; a small yellow dot above the base of each antenna; antennæ dark chestnut-brown, shading into rufo-testaceous beyond the middle; pronotum finely cribrate-punctate, the rest of the upper surface nearly smooth; pronotum with rather broad lateral orange borders, not extending to the hind border; mesonotum with the lateral carina reddish; metanotum with a rufo-testaceous spot at the base, on each lateral margin, and a similar spot on the sides of the second abdominal segment (the first segment being covered at the sides by the metanotum); cerci dark rufo-testaceous, set with long fine hairs; legs rufo-testaceous and middle of abdomen beneath reddish.

1, Pretoria (*Distant*).

Allied to *D. meridionalis*, Sauss., but larger and differently coloured.

Until the sexes of *Deropeltis* are better known, it is almost impossible to unite them in our collections with anything approaching certainty.



## Panchloridæ.

*Rhyparobia maderæ.*

*Blatta maderæ*, Fabr. Spec. Ins. i. p. 341. n. 2 (1781).

*Panchlora maderæ*, Bruun. Syst. Blatt. p. 282 (1865).

1, Angola (*Monteiro*); 1, E. Africa (*Distant*).

A cosmopolitan species.

*Gyna caffrorum.*

*Panchlora caffrorum*, Stål, Cefv. Vet.-Akad. Förh. xiii. p. 167 (1856);

Bruun. Syst. Blatt. p. 268 (1865).

*Epilampra conspicua*, Walk. Cat. Blatt. p. 67. n. 2 (1869).

*Panchlora scripta*, Walk. l. c. p. 183.

|| *Gyna fervida*, De Borm. (nec Sauss.), Ann. Soc. Ent. Belg. xxv. p. 21, pl. i. B (1881).

1, Warm Baths, Waterberg (*Distant*); 1, Rustenberg (*Ayres*); 2, Barberton (*Rendall*). Natal (*Stål*); N'Gami, Delagoa Bay (Nat. Hist. Mus.).

In unset specimens the red blotches are hardly visible, and such specimens agree very well with Stål's description.

[In Waterberg I found this species on the leaves of trees.

—W. L. D.]

*Nauphæta aspersata*, sp. n.

Long. corp. cum tegm. 20 millim.

Testaceous; head reddish above, with a brown band between the eyes, divided by yellowish spaces into three square spots; then follows a broader yellowish band between the antennæ, below which the face is about equally divided into a blackish upper space and a yellowish lower space. Pronotum brownish in the middle and testaceous on the sides, irregularly dotted with black; towards the middle these dots tend to form longitudinal lines here and there, but there is no trace of the conspicuous black lateral stripes of *P. cinerea*, Oliv., to which this species is most nearly allied. On the outside of the eyes a black band runs backward and is continued beneath the wings and above the upper part of the coxæ. Wings, legs, and under surface mostly brown; costal area and legs more or less dotted with brown. Upperside of tibiæ brownish.

1, Pretoria (*Distant*).

A single specimen, which has lost the abdomen. It is labelled *N. circumvagans*, Burm., which species, however, belongs to the genus *Phætalina*. *N. aspersata* might, however, be the same as *N. grisea*, Burm., the type of *Nauphæta*,

according to Stål; but *N. grisea* was described from the East Indies, and the legs are not said to be mottled.

### Perisphæriidæ.

This family seems to be pre-eminently an African group, but it is at present very imperfectly known. The females of many species are apterous, and there are many genera of which only males or females respectively are at present known, and comparatively few species belonging to genera which are apterous, at least in the females, are satisfactorily known in both sexes.

#### *Eustegasta pæcila.*

*Panchlora pæcila*, Schaum, Ber. Akad. Berlin, 1853, p. 777; Peters's Reise nach Mossambique, Zool. v. p. 109, pl. vii. fig. 2 (1862); Brunn. Syst. Blatt. p. 281 (1865).

A very pretty species and extremely variable. A description of Mr. Distant's specimens is given below. The variations are combined in so many different ways that I cannot venture to regard them as representing more than one species.

Schaum's figure is greatly enlarged and badly coloured, which rendered it no easy matter to identify the species.

Long. corp. cum tegm. 14–15 millim.

Head rufo-testaceous, generally with a black transverse band in front just below the antennæ, or this forms the upper part of a longitudinal band filling the whole centre of the face, or the band may be broken in two or reduced to a narrow perpendicular stripe, or the occiput may be black, or the whole head may be black except a reddish transverse band above the antennæ, or red with no black markings. Antennæ black, with a broad reddish band before the extremity. Pronotum black, shining, broadly bordered on the sides with rufo-testaceous and more narrowly before and behind; the hind border is sometimes interrupted in the middle. Abdomen rufo-testaceous, sometimes with a broad longitudinal black central band. Tegmina dark metallic green, more or less varied with chestnut-red; the costa is usually edged with this colour nearly to the extremity and marked with a triangular spot beyond the middle. Below the costal area is a chestnut-red line, expanding into a broad blotch at about two thirds of the wing; sometimes the whole costal area is of this colour except a short basal streak, and coalesces with this blotch; and in some specimens the inner margin of the basal area is of the same colour; and there may be a similarly

coloured spot towards the inner margin opposite the triangular spot on the costa. Wings smoky hyaline, with rufo-testaceous nervures towards the costa and brown ones elsewhere; the transverse nervures are whitish: or the wings are frequently pale subhyaline, with brown borders. Legs black, with black or red spines; coxæ often bordered by a pale line. In some varieties the legs are red, or the whole under surface of the body is black, or the under surface of the abdomen is transversely banded with black, or the red markings of the tegmina are reduced to a streak at the base of the costa, a streak or spot below the subcostal area opposite the end of the basal area, and a spot on the lower part of the costal area at three-fifths of its length. Nothing seems constant but the colour of the antennæ and pronotum, and even the reddish hind border of the pronotum is interrupted behind in some specimens. But all these variations grade into each other too much to allow of their being regarded as distinct species.

4, Zomba; 3, Fort Johnston, Nyasaland (*Rendall*); Mozambique (*Schaum*).

*Eustegasta obsoleta.*

Size and appearance of the last species, of which it may possibly be an extreme variety.

Head dull red above, black below; antennæ black, with a broad pale band before the extremity. Pronotum black, the lateral borders with or without a faint chestnut shade. Tegmina dark metallic green, tinged with chestnut on the outer half and with a dull reddish expanding line from the base below the costal area for two-fifths of the length of the wing. Wings smoky hyaline. Abdomen black. Under surface black; coxæ bordered with a pale line; tibiæ and tarsi reddish.

1, Fort Johnston, Nyasaland (*Rendall*); 1, Zomba (Nat. Hist. Mus.).

*Gynopeltis discoidalis.*

*Perisphæria discoidalis*, Brunn. Syst. Blatt. p. 310 (1865); Sauss. Mém. Soc. Genève, xx. p. 276 (1869).

5, Zomba; 3, Fort Johnston, Nyasaland (*Rendall*).

Cape (*Brunner*); Somali, Mombasa, Zanzibar, Udara, British East Africa (Nat. Hist. Mus.).

*Gynopeltis cryptospila.*

*Polyphaga cryptospila*, Walk. Cat. Blatt. p. 15. n. 6 (1868).

*Gynopeltis picta* (♀ only ?), Gerst. Arch. f. Nat. xxxv. p. 208 (1869);  
Von der Decken's Reisen, iii. (2) p. 9, pl. i. figs. 1 (?), 2 (1873).

3, Zomba; 2, Fort Johnston, Nyasaland (*Rendall*); Endara, Mozambique (*Gerstaecker*).

Fwambo (Nat. Hist. Mus.).

This species curiously resembles the female of *Polyphaga aegyptiaca*, but is not pubescent and the subgenital plate is not indented. De Saussure doubts if the male associated with it by Gerstaecker really belongs to the same genus.

*Elliptoblatta uniformis*, sp. n.

Long. corp. 18–22 millim.; lat. pron. 13 millim.

*Female*.—Black, smooth, shining, very finely, closely, and uniformly punctured; eyes separated by a short space, lower mouth-parts testaceous; antennæ ferruginous towards the base; legs more or less ferruginous; terminal plate transverse, rounded; cerci yellow; angles of pronotum not produced behind.

3, Blantyre (*Elson*).

The first continental representative of this Madagascar genus.

*Pronaonota cribrosa.*

*Pronaonota cribrosa*, Sauss. Rev. Suisse Zool. iii. p. 21, pl. i. fig. 1 (1895); Sauss. & Zehntn. Grandid. Hist. Madag., Orth. i. p. 128, pl. v. fig. 62 (1896).

Long. corp. 30 millim., cum tegm. 38 millim.

*Male*.—Head black above; labrum red; lower mouth-parts and antennal pits testaceous; antennæ testaceous at the base and reddish brown beyond. Pronotum less arched than in the female, thickly punctured, yellowish testaceous, inclining to reddish in the middle, and with some detached black marks on each side of the subcarinated median line, representing the lyrate pattern so common among the Blattidæ. Abdomen very long, testaceous; cerci long, thick, slightly incurved. Tegmina longer than the abdomen, testaceous, paler along the costa. Wings longer than the tegmina and paler, with brown longitudinal and whitish transverse nervures.

The female has the base of the abdominal segments reddish above, but otherwise agrees with Saussure's description.

2, Pretoria (*Distant*).

This is one of the most interesting species in Mr. Distant's collection. The male of the genus was previously unknown. It is not unlike a large *Termes*, and is so similar to the description and figure of *Derocalymma clypeata*, Sauss. (Mém. Soc. Genève, xxiii. p. 142, pl. x. fig. 52), said to be from Java (?), that I should not be surprised if it eventually proves to be the same species.

*Pilema thoracica*.

*Perisphæria thoracica*, Walk. Cat. Blatt. p. 174. n. 20 (1868).

*Pilema hebetata*, Sauss. Rev. Suisse Zool. iii. p. 24, pl. i. figs. 2, 2 a, b (1895).

(?) *Blatta fusca*, ♀, Oliv. Enc. Méth., Ins. iv. p. 315. n. 9 (1789).

1, Pretoria (*Distant*).

This species agrees with Olivier's description of the insect he considered to be the female of *Blatta fusca*, Thunb., so far as it goes; but he did not mention the peculiar form of the thorax, and I believe that the true *B. fusca*, Thunb. (a male insect), has not yet been satisfactorily identified.

*Pilema Saussurei*, sp. n.

Long. corp. 15 millim.; long. et lat. pron. 6 millim.

*Female*.—Head and thorax dark red; vertex with four black lines between the eyes; the carinæ of the overlapping sides of the pronotum meeting at an acute angle in front and projecting in a point behind; sides of pronotum broadly and shallowly guttered on the sides; a well-marked carina on the median line in front. Pronotum and first segment of abdomen moderately closely and finely punctured; pronotum mottled with black in the middle; the three thoracic segments with an interrupted black stripe towards the hind border; abdominal segments bordered with black behind. Antennæ black, reddish towards the base. Legs and abdomen beneath testaceous yellow, shining.

1, Pretoria (*Distant*).

The head is marked like that of *Pronaonota fornicata*, Sauss., but the generic characters prevent me from regarding it as an immature form of that species.

*Stenopilema cylindrica* (?).

*Perisphæria cylindrica*, Walk. Cat. Blatt. p. 176. n. 23 (1868).

1, Barberton (*Rendall*).

An immature specimen, probably belonging to this species, but coloured like *Pilema Saussurei* (suprà). It belongs to the group of *S. capucina*, Gerst.

*Stenopilema pallicornis*, sp. n.

Long. corp. 13-14 millim., lat. 6 millim.

*Female*.—Black, thickly and finely punctured, more finely on the hinder segments of the abdomen. Head black; antennæ, antennal cavities, sides and lower part of face, legs, a narrow line extending round the whole thorax and abdomen, cerci, and more or less of the face and subterminal plate below rufo-testaceous or reddish; rim of pronotum upcurved, hinder angles produced backwards into a tooth; meso- and metanotum with the hinder angles slightly recurved. Eyes rather wide apart.

2, Pretoria (*Distant*).

One of these specimens is labelled *S. capucina*, Gerst.; but *capucina* is a much larger species, with the head redder and the antennæ darker, besides other slight differences which may be noticed in the description. There appear to be many closely allied species of this genus.

*Cyrtotria scabra*.

*Perisphæria scabra*, Walk. Cat. Blatt. p. 172. n. 17 (1868).

1, Pretoria (*Distant*).

Walker's type is said to come from South Africa, near the Tropic of Capricorn.

*Derocalymma* (?) *elateroides*.

*Perisphæria elateroides*, Walk. Cat. Blatt. p. 176. n. 24 (1868).

1, Barberton (*Rendall*); Natal (*Gueinzius*) (Nat. Hist. Mus.).

The hood of this species is interrupted in the middle, the carinæ being complete; but I prefer to place doubtful forms in *Derocalymma* till they are better known. The short stout form of the insect resembles that of *Pronaonota*.

*Derocalymma versicolor*.

*Derocalymma versicolor*, Burm. Handb. Ent. ii. p. 487. n. 9 (1838);  
Brunn. Syst. Blatt. p. 317 (1865).

1, Blantyre (*Elson*); 1, Delagoa Bay (*Junod*).

Two female specimens, which I refer to this species with some doubt.

*Derocalymma porcellio.*

*Derocalymma porcellio*, Gerst. Arch. f. Nat. xxxv. p. 207 (1869); Von der Decken's Reisen, ii. (2) p. 7, pl. i. figs. 3, 3 a (1873).

1, Zomba; 2, Fort Johnston, Nyasaland (*Rendall*); Lake Jipe, Uru (*Gerstaecker*).

I am not sure that Gerstaecker has correctly identified the female of this species. I should not be surprised to find that it was a broad oval insect allied to *D. intermedia*.

*Derocalymma linearis* (?).

*Perisphæria linearis*, Walk. Cat. Blatt. p. 176. n. 25 (1868).

1, Pretoria (*Distant*).

An immature specimen, apparently belonging to this species.

*Derocalymma punctata.*

*Derocalymma punctata*, Sauss. Rev. Suisse Zool. iii. p. 29 (1895); Sauss. & Zehntn. Grandid. Madag., Orth. p. 131 (1896).

2, Pretoria (*Distant*).

The only locality given by Saussure is South Africa.

*Derocalymma bipapilla*, sp. n.

Long. corp. 20-22 millim.; lat. pron. 13 millim.

*Female*.—Black; head small, punctured; eyes moderately approximating; pronotum broad, the lateral lamellæ longitudinally convex both above and below; a broad gutter on the inner side of the rim above, extending to the front margin, where the approximating ends are separated by a short longitudinal carina. The pronotum is thickly punctured, and about the middle of the gutter is a large raised tubercle on each side. The back of the pronotum is raised into a crescent directed forwards; the front of this is less thickly punctured, but the enclosed segment of a circle behind very thickly. Here, and on the remaining segments of the thorax and abdomen, we find interrupted traces of a central carina. The sides of the meso- and metanotum are flattened and recurved, and the segments of the abdomen are subdentate on the lateral edges. The abdomen is thickly cribrate-punctate, and there is a row of large granules on each side of the metanotum and of all the segments of the abdomen except the last, before the extremity. Cerci black; terminal plate obtusely angulated.

6, Blantyre (*Elson*).

This species differs from *D. punctata*, Sauss., in its larger size, black cerci and tarsi, and in having only one tubercle on each side in the gutter instead of two. It differs from *D. granulata*, Sauss., in being broader in proportion, less strongly granulated, and in the broader rims and sulci of the pronotum.

*Derocalymma intermedia*, sp. n.

Long. corp. 18 millim. ; lat. pron. 10 millim.

*Female*.—Blackish brown, thickly covered with a greyish pile, especially above. Sides of the pronotum flattened, back slightly convex ; a central carina in front, but the sulci obsolete ; a raised tubercle on each side. The whole upper surface finely punctured and granulated. Cerci black ; legs black or slightly inclining to reddish.

2, Barberton (*Rendall*).

Resembles *P. granulata*, Sauss., in general structure, but is much broader in proportion.

*Derocalymma granulata*.

*Derocalymma granulata*, Sauss. Rev. Suisse Zool. iii. p. 29 (1895) ;  
Sauss. & Zehntn. Grandid. Madag., Orth. p. 131, pl. v. fig. 65 (1896).

1, Blantyre (*Elson*).

This specimen is considerably smaller than the dimensions given by Saussure. It measures 17 millim. in length and 9 in breadth.

*Derocalymma pallipes*, sp. n.

Long. corp. cum tegm. 20 millim. ; long. et lat. pron. 5 millim.

*Male*.—Head black ; antennal pits, palpi, and lower mouth-parts testaceous ; antennæ reddish brown, paler towards the base. Pronotum black, slightly reddish on the narrow, flattened, hardly recurved carina ; very rugose and cut off almost straight behind. Lateral carinæ complete, uniting in an angle before the arch over the head. Legs rufo-testaceous, coxæ more or less black at the base ; abdomen blackish, varied with reddish towards the base of the segments and on the sides ; terminal plate and cerci reddish ; tegmina rufo-testaceous, blackish at the base below the costal area.

1, Grahamstown (*Schonland*).

Appears to resemble *D. analis*, Sauss.



*Derocalymma clavigera*, sp. n.

Long. corp. 15 millim.; long. pron. 9 millim. (jun.), 10 millim.; lat. pron. 6 millim.

*Female*.—Clay-coloured. Eyes rather wide apart. Sides of the pronotum slightly raised, not sulcated; a median carina in front. Pronotum, except at the sides, with numerous longitudinal rugosities and granules; two transverse rows of large granules, the first interrupted in the middle before the extremity. Meso- and metanotum with three rather irregular rows of large granules, the largest at the extremity. The extremity of each of the abdominal segments bears, except on the edges, a row of very large granules, not very close together, as if studded with nails. This is preceded on each segment by one or two rows of smaller and closer ones. Even the rounded terminal plate bears two short rows of large tubercles. Under surface dark brown, with greyish tomentum, but without tubercles. The smaller specimen is more reddish, especially beneath.

2, Barberton (*Rendall*).

Allied to *D. Bottegoiana*, Sauss., but much smaller and with much larger tubercles.

*Hostilis proterva*.

*Blatta proterva*, Stål, Öfv. Vet.-Akad. Förh. xiii. p. 166 (1853).

*Phyllodromia proterva*, Brunn. Syst. Blatt. p. 111 (1865).

1, Delagoa Bay (*Junod*). Natal (*Brunner*).

**Heterogamiidæ.***Heterogamia ursina*.

*Heterogamia ursina*, Burm. Handb. Ent. ii. p. 489 (1839); Sauss. Rev. Suisse Zool. i. p. 313 (1893).

*Heterogamia africana*, Brunn. (♂, nec ♀; nec Linn.), Syst. Blatt. p. 357 (1865); Krauss, Verh. zool.-bot. Ges. Wien, xl. p. 251 (1890).

*Heterogamia conspersa*, Brunn. (♀, nec ♂), l. c. p. 358 (1865).

*Heterogamia syriaca*, Krauss, l. c. p. 241 (1890).

*Heterogamia maris-mortui*, Jans., Hart, Faun. & Flor. Sinai, p. 182 (1891).

1, Fort Johnston; 1, Zomba, Nyasaland (*Rendall*). Egypt, Syria (*Burmeister*); Mombasa (Nat. Hist. Mus.).

The above synonymy is taken from Saussure.

**Chorisoneuridæ.***Oxyhaloa deusta*.

*Blatta deusta*, Thunb. Hem. Max. Cap. p. 8 (1822).

*Proscratea deusta*, Stål, Öfv. Vet.-Akad. Förh. xiii. p. 167 (1856).

*Proscratea fulviceps*, Burm. Handb. Ent. ii. p. 509 (1839).

*Oryhaloa fulviceps*, Brunn. Syst. Blatt. p. 255 (1865).

*Nauphæta ruficeps*, Walk. Cat. Blatt. p. 39. n. 11 (1868).

*Ischnoptera ruficeps*, Walk. l. c. p. 123. n. 64 (1868).

*Nauphæta signifrons*, Walk. l. c. p. 40. n. 12.

2, Pretoria, Nov. 1894 (*Distant*); 7, Barberton (*Rendall*); 1, Blantyre (*Elson*). Cape (*Thunberg*); Pirie Bush, Delagoa Bay, Machakos, Durban, Natal (Nat. Hist. Mus.).

Varies in colour from ferruginous to nearly black, but may always be known by the red head, with a large square blotch in front.

XXXVIII.—*Some new or little-known Thelyphonidæ and Solifugæ.* By R. I. POCKOCK.

Family Thelyphonidæ.

Genus HYPOCTONUS, Thorell.

*Hypoctonus granosus*, sp. n. (Fig. 4.)

*Colour.* Upperside of trunk blackish, lower side castaneous; chelæ black; legs of first pair reddish brown; femora and patellæ of second, third, and fourth legs blackish, remaining segments reddish brown.

*Trunk* sculptured and granular above as in *H. formosus*; abdominal sterna sparsely punctured and weakly striate; first sternal plate (genital operculum) with the middle of its posterior border convexly produced and defined by a transverse depression; the anterior part of the plate marked on each side with a deep transversely oval pit, behind these in the middle line there is also a median longitudinal depression, deeper in front than behind.

*Chelæ* resembling those of *H. formosus* in form and spine-armature, but differing in having the upper as well as the underside of the trochanter, femur, tibia, and hand studded with coarse round granules.

*Legs* of third and fourth pairs with tibial spur, apical tarsal segment of first longer than the seventh and eighth.

*Ommatoids* fairly large, separated by a space which is about equal to a diameter and a half.

Total length 33 millim.

*Loc.* Yunnan.

A single female example.

Recognizable from all the known species by the coarse granulation of the upperside of the chelæ.